THE MINISTER OF STATE IN THE DEPARTMENT OF SCIENCE AND TECHNOLOGY IN THE MINISTRY OF SCIENCE AND TECHNOLOGY (SHRI BACHI SINGH RAWAT): (a) Indian scientists have been actively working in the area of genetics and mapping of biodiversity. The Department of Biotechnology with the help of an Expert Advisory Committee has been implementing programmes on human genetics and genome analysis since 1990-91. The focus has been on disease diagnosis, genetic counseling and understanding the human diversity. Although India did not join the sequencing of human genome project on the expert advice, several relevant projects have been taken up. Infrastructure and expertise in sequencing technology has been created. Major projects in the area of functional genomics, human genome diversity studies and 55 bioinformatics network centers alongwith four mirror sites of genome sequence information are under implementation. Documentation, characterization and inventorisation of plant biodiversity has given good results in some eco-systems of the country. Under the National Bioresource Development Board projects in animals, microbial and plant diversity have been taken up.

(b) to (d) The investment and infrastructure needed for international sequencing project would have been very high. It was also known that the information would be available in public domain, accordingly Indian genome initiative programme was started. Recently programmes have been formulated to utilize this large information base, specially in the areas of functional and application genomics, micro array technology, sequencing of microbes, pharmacogenomics etc. This is a continuing exercise. The results from these projects are likely to be available during next 2-5 years.

Cloning of Cheeta by CCMB

1614. SHRI K. RAMA MOHANA RAO : Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that CCMB, Hyderabad has taken up a

project to clone cheetah by using advanced biological tools and technology;

(b) whether it is also a fact that a laboratory for conservation of endangered species has been set up at Nehru Zoological Park, Hyderabad for this purpose;

(c) whether any study has been carried out with regard to cloning of cheetah in India; and

(d) if so, the details thereof?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. MURLI MANOHAR JOSHI): (a) and (b) Centre for Cellular & Molecular Biology (CCMB), Hyderabad have taken up a project on the Laboratory for the Conservation of Endangered Species (LaCONES) in collaboration with Nehru Zological Park, Hyderabad. The technology for cloning of cheetah can also be possible if Indian species of cheetah becomes available.

(c) No, Sir.

(d) Does not arise.

Licensing of intellectual properties by CSIR

1615. SHRI A. VIJAYA RAGHAVAN: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether CSIR has been sharing the money realised from licensing of intellectual property fee from contract Research and Development and Science and Technology services with CSIR staff including Directors, Controller of Administration and Finance and Accounts Officers of each laboratory/Institute of CSIR *w.e.f.* 1st April, 1994; and

(b) if so, the amount of money distributed and the date of distribution in each institute/laboratory of CSIR, including CSIR Hq., during the last three years, year-wise and category-wise?

THE MINISTER OF SCIENCE AND TECHNOLOGY (DR. MURLI MANOHAR JOSHI): (a) Yes, Sir.